

APPLICATION FOR
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SPECIFICATION

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Title of the Invention: Electronic Transaction System

Electronic Transaction System

Background of the Invention

Field of the Invention

5 The present invention relates to an electronic transaction system which electronically makes requests to suppliers or vendors for estimates and orders for commodities.

10 Description of the Related Art

Conventionally, in an organization, requests for estimates and orders for commodities by an enterprise department office to suppliers or vendors with whom the organization does business are first approved by
15 a superior officer in the office and then sent to the general affairs office in the organization. The general affairs office sorts out the requests and sends the requests to each vendor in the form of documents. Upon receipt of an estimate request or an
20 order request from the general affairs office, each vendor makes an estimate for the cost of delivering commodities, the term of delivery and if the commodities are kept in stock, or arranges delivery and makes out a bill, as required. In the case of an
25 estimate request, a reply is sent in writing to the

requesting general affairs office. In the case of an order request, the requested commodity and a bill are delivered to the general affairs office. The bill is counted towards the organizational costs by the
5 general affairs office and the commodities are delivered to the requesting office. The results of an estimate request are also sent from the general affairs office to the requesting office.

In the conventional system, however, after an
10 estimate request or an order request has been issued to a vendor, the only way of confirming that the vendor has received the request without fail is to inquire of the vendor by telephone.

In addition, since all matters are processed using
15 paper, time-consuming work is required. The task of the general affairs office that handles requests made by all the offices in an organization becomes complicated.

Furthermore, delivered articles or services are
20 sometimes not inspected for a long time in the organization, delaying payment to vendors. In such a case, the general affairs office will have to carry out the extra work of handling many inquiries from the vendors.

Summary of the Invention

It is an object of the present invention to provide a system which permits requests to vendors and for request conditions to be understood easily, by communicating electronic data.

According to an aspect of the present invention, there is provided an electronic transaction system for making a request for estimating or ordering an article or service required by an organization to a vendor outside the organization comprising: a processing unit installed inside the organization and having input means for inputting an estimate or order request and inputting information related to the request on the basis of information sent from the vendor after the request has been made; and a management unit for managing communications between the processing unit in the organization and a processing unit in the vendor company, the management unit including: information entry means installed inside the organization for entering data input by the input means of the processing unit in the organization; transmission means for transmitting the estimate or order request entered into the information entry means installed in the organization and request-related data input later as requested by the processing unit in the

vendor company; and entry means installed outside the organization for transmitting data used for the vendor to make a reply to the estimate or order request as requested by the processing unit in the vendor company
5 and entering data input and sent by the processing unit in the vendor company.

According to another aspect of the present invention, there is provided an electronic transaction system for making a request for ordering articles or
10 services required by an organization to vendors outside the organization comprising: first processing units installed in department offices of the organization for inputting order requests and a second processing unit installed inside the organization for
15 managing estimate or order requests made by the first processing units, the second processing unit including management means for managing dates of delivery of articles or services input from processing units installed in the vendor companies and acceptance
20 processing means for deciding, for each first processing unit that makes a new estimate or order request, the presence or absence of order requests made by that first processing unit for which acceptance inspection of an article or service
25 delivered has not been made within a predetermined

period of time after its date of delivery and refusing the new request when the acceptance inspection has not been made.

According to still another aspect of the present invention, there is provided an electronic transaction management unit for managing communications between a processing unit installed inside an organization for making a request for estimating or ordering an article or service and a processing unit installed in a vendor company outside the organization comprising: information entry means installed inside the organization for entering data input by the input means of the processing unit in the organization; transmission means for transmitting the estimate or order request entered into the information entry means installed in the organization and request-related data input later as requested by the processing unit in the vendor company; and entry means installed outside the organization for transmitting data used for the vendor to make a reply to the estimate or order request as requested by the processing unit in the vendor company and entering data input and sent by the processing unit in the vendor company.

According to the present invention, the management unit presents request conditions in such a way that

they can be accessed from outside via a network, allowing outside vendors to easily know what the ordering organization needs. Thus, the vendors can immediately accommodate requests made by the orderer
5 and use the request conditions to understand the conditions in which commodities and services have been delivered. This will simplify office work and reduce troubles in business.

The ordering organization makes requests public,
10 which will provide the same advantages as a public tender. For this reason, the organization can receive estimates from two or more vendors and choose a vendor who provides the most advantageous conditions from among the vendors.

15 Conventionally, delivered articles or services are sometimes not inspected for a long time by the organization, delaying the payment to vendors. In such a case, the number of inquiries from the vendors increases, which results in extra work for the
20 handling of these inquiries. According to the present invention, this problem can be solved.

Brief Description of the Drawings

FIG. 1 is a schematic of a system of the present
25 invention;

FIG. 2 is a flowchart for estimate processing by the system in each organization office, the system manager and the WWW server in the VAN center, and the vendor's terminal;

5 FIG. 3 is a flowchart for ordering and order acceptance processing by the organization office, the VAN center, and the vendor;

10 FIG. 4 is a flowchart for processing of shipping and acceptance inspecting of a commodity by the organization office, the VAN center and the vendor;

15 FIG. 5 is a flowchart for processing in the case of stopping acceptance of a new request when there is a request for a commodity for which acceptance inspection has not been made for a predetermined period of time;

FIGs. 6A through 6F show the stored contents of each database used in the system of the present invention;

20 FIG. 7 shows a display example of a home page menu which is displayed first when the vendor makes access to the estimate/order request system in the WWW server;

FIG. 8 shows a display example of a list of estimates;

25 FIG. 9 shows a display example of a page

indicating the contents of an estimate request;

FIG. 10 shows a display example of a page for a reply to an estimate request;

5 FIG. 11 shows a display format of particulars in an estimate reply;

FIG. 12 shows a display example of a list of order acceptances displayed when the order acceptance option is chosen from the main menu of FIG. 7;

10 FIG. 13 shows a display example of a statement of delivery;

FIG. 14 shows an example of a display for entry of required items when the vendor sends shipping information to the orderer;

15 FIG. 15 shows a display example when the accounts payable information reception option is chosen from the main menu of FIG. 7; and

FIG. 16 shows a display example when the list of estimate replies option is chosen from the main menu of FIG. 7.

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Description of the Preferred Embodiments

FIG. 1 is a schematic representation of an electronic transaction system of the present invention. In the following description, commodities
25 shall include not only articles or goods but also

services such as printing of brochures and the like, development of photographic film, etc.

Organizations 10 and 10' are such as enterprises or the like. Each organization has a plurality of
5 department offices (hereinafter referred to simply as offices) 13 and 14 (13' and 14') and a general affairs service center 15 (15') that handles the general affairs for the offices. A VAN (Value-Added Network) center 16 may be arranged to handle the organizations
10 10 and 10' on a batch basis as shown; otherwise, a dedicated VAN center may be provided for each organization. The following description will be given bearing in mind that the VAN center handles two organizations. In the system of the present
15 invention, the organizations 10 and 10' are connected to the VAN center 16 and are accessible via a network 11 by a vendor 12 with which the organizations do business. If a VAN center is provided exclusively for each of the organizations 10 and 10', it may be
20 installed in the corresponding organization, for example, as a part of the facilities of the corresponding general affairs service center 15 or 15'.

The offices 13, 14, 13' and 14' and the general
25 affairs service centers 15 and 15' have terminals 17,

18, 19, 17', 18' and 19' installed, respectively, which are connected by networks, such as LANs, for data communications. The VAN center is equipped with a system manager 22 which processes estimate requests
5 from the organization 10 or 10' to a vendor 12 and so on and a WWW server 20 that is accessible by the vendor 12. With the system manager and the WWW server are respectively associated a database 23 and a database 24 which record estimate request information
10 for each request.

In each office, a person in charge creates an electronic document for a request to estimate or order a commodity on the corresponding terminal and requests a manager to approve of it as it is, in the form of
15 electronic data. Upon receipt of the approval of the manager, the person sends the request in the form of electronic data from the corresponding terminal to the terminal 19 (19') of the corresponding general affairs service center 15 (15'). When the request sent from
20 the office is an estimate request, it is sent to the VAN center 16 as it is. In the VAN center, the request is recorded on the databases 23 and 24 and appears in a home page provided by the WWW server 20.

The vendor 12 makes access from its terminal 21
25 via the network 11 to the WWW server 20 in the VAN

center 16, to see the home page. Thus, the vendor confirms that an estimate request has been made by the organization 10. In response to the estimate request, the vendor makes an estimate for the commodity and
5 then sends the results to the terminal 19 of the general affairs service center 15 via the VAN center 16. In the VAN center, that a reply has been made to the estimate request is entered into the databases 23 and 24. The general affairs service center sends the
10 results of the estimate to the terminal of the office that made the estimate request.

In the case of an order request for a commodity, on the other hand, the general affairs service center first issues an estimate request to the vendor before
15 the corresponding order request is made. The estimate request is processed in the same manner as described previously. Upon receipt of the results of the estimate, the service center makes an order request to a vendor after evaluation of the results. This
20 order request is made by sending a notification to the home page of the WWW server data to the effect that an order request is made to a specific vendor. If the ordering office has already received the results of the estimate, data to that effect is sent to the
25 service center together with an order request. The

evaluation made by the general affairs service center of the results of an estimate is one for, when two or more vendors 12 have sent the results of their estimates for an estimate request, deciding with which
5 vendor an order is to be placed on the basis of evaluation criteria such as the total cost, item, discount amount, etc., as in the case of a public tender. In practice, the terminal in the general affairs service center can be set to automatically
10 decide which vendor fulfills the evaluation criteria and then to make an order request to that vendor. At the same time, the person in charge and the management in the general affairs service center examine the data and make a decision, print the results as documentary
15 evidence, and send the order data to the WWW server. When the automatically sent order data and the order data sent after the examination and the decision are received, they are displayed in the home page of the WWW server 20, thus allowing the vendor 12 to know
20 that an order has been issued to it.

Upon receipt of an order request, the vendor prepares the commodity for shipment. On completion of the shipment, the vendor sends from the terminal
21 through the network 11 to the VAN center 16
25 shipment information to the effect that the

commodities have been shipped. The shipment information is entered into the databases 23 and 24 in the VAN center 16 and sent to the terminal in the ordering office via the service center. When the
5 ordered commodities are delivered to the ordering office, a message that the commodities have been accepted is sent from the ordering office to the general affairs service center. Acceptance inspection is notified on the terminal 19 and the price of the
10 commodities is appropriated to the organization's expenditure. The results of the acceptance inspection and the appropriation are sent as inspection data and accounts payable data to the VAN center 16 where they are entered into the databases 23 and 24 and appear
15 in the home page of the WWW server 20.

Thus, a series of estimate and order requesting processes terminates. The message format and protocol used in the present system conform to the EDI (Electric Data Interchange) standardized in various
20 industrial fields.

FIG. 2 is a flowchart for estimate processing among each office-installed system, the system manager and WWW server in the VAN center, and the vendor terminal.

25 In the first place, an estimate request is entered

from the office system (terminal). Input data items at this time include estimate number, item, and specification. In step S2, the estimate request entered from the office system is sent to the system manager where it is entered into a database (1) that records estimate requests. In step S3, the term of reply for the estimate request is set by the personnel in the general affairs service center. In step S4, a menu number or name is attached to the estimate request using an item code of the item contained in the estimate request as a key.

The estimate request with the estimate reply term and the menu number/name attached is sent to the WWW server together with a sender's code (step S5). The WWW server searches for an estimate database (2) corresponding to the sender's code and enters the received estimate request data into it (step S6). This is intended to manage request conditions for each requester. In step S7, the menu number/name is retrieved from the estimate request data and the number of requests corresponding to the menu number/name is updated. Thus, the WWW server allows the estimate request to appear in its home page.

The vendor specifies the URL of the home page of the WWW server in which menu items appear (step S8)

to make access to the server. The WWW server then sends to the vendor the HTML data of the home page in which the menu items appear (step S9). On the vendor side, the received HTML data is displayed (step S10) and a desired classification item the vendor wants to see is specified in the displayed menu (step S11). The WWW server is notified of the specified classification item and then searches through the estimate database (2) using the specified classification item as a key to list requests whose terms of reply have not expired. The requests are converted into HTML data and then sent to the vendor (step S12).

On the vendor side, the received HTML data is displayed (step S13) and one request is chosen from the list (step S14). The chosen request is sent to the WWW server. The server converts the particulars of the chosen estimate request into HTML data and sends it to the vendor (step S15). On the vendor side, the received HTML data is displayed (step S16). If no reply is made to the request, access to the WWW server is terminated. If the vendor responds to the estimate request, a message to that effect is sent to the WWW server (step S17). Upon receipt of the message to the effect that the vendor will respond to

the estimate request, the WWW server sends an input format for reply to the vendor (step S18). Upon receipt of the input format, the vendor enters its replies (step S19) for transmission to the WWW server.

5 Upon receipt of the reply to the estimate request, the WWW server enters it into the estimate database (2) (step S20). Of replies to estimate requests which have already been recorded in the database (2), those which have not been sent to the system manager or
10 those for which the term has expired are sent to the system manager (step S21).

 In the system manager, data received from the WWW server is entered into the estimate database (1) (step S22). For outstanding replies entered into the
15 estimate database (1), a vendor is determined for each estimate number attached in the offices (step S23). This processing is one to narrow down a plurality of vendors who have replied to one estimate request to one, taking into consideration predetermined
20 conditions (the price, the term of delivery, etc.). In step S24, a decision is made as to whether or not the estimate request has been issued from the general affairs service center. If it has, then ordering and order accepting processing, to be described later, are
25 performed. If it has not, the reply to the estimate

is sent to the office that made the estimate request.

FIG. 3 is a flowchart for the ordering and order accepting processing among the office system, the VAN center, and the vendor.

5 In step S26, a request to purchase a commodity is input and then sent to the system manager. Data items on the purchase request includes requester information, desired term of delivery, item, and so on. If an estimate request has been made previously
10 and a reply has been obtained from a vendor, an estimate number is also contained in the data items.

 Upon receipt of the purchase request from the office system, the system manager determines whether or not an estimate number is contained in the purchase
15 requesting message (step S27). If it is not, the procedure goes to step S28 where an estimate request is entered in the general affairs service center. The steps that follow step S1 in FIG. 2 are then performed. If, on the other hand, an estimate number
20 is contained, the procedure goes to step S29. When a reply to the estimate request made in step S28 is received, the procedure goes to steps S24 to S29 of FIG. 2.

 In step S29, the person in charge in the service
25 center set the term of delivery and, in step S30, it

is entered into an ordering database (1). The purchase request is then sent to the WWW server with the sender's code appended (step S31). The WWW server searches for an ordering database (2) corresponding to the sender's code and enters the ordering data (purchase request) into the ordering database (2) (step S32).

The vendor specifies the URL of the WWW server to access it (step S33). It is recommended that the vendor be allocated an ID and a password in advance and allowed to make access to the menu of the WWW server only when the vendor inputs the correct ID and password so that unauthorized access to the WWW server cannot be made by those who have nothing to do with the commodity ordering and order accepting system of the WWW server.

When accessed by the vendor, the WWW server sends the HTML data of the menu to the vendor (step S34). On the vendor side, the received HTML data is displayed (step S35), and the "order acceptance processing" option is selected in step S36. On receiving notification that the "order acceptance processing" option has been selected, the WWW server retrieves records corresponding to the vendor's ID from the ordering database (2) (step S37). In

subsequent step S38, the retrieved records are sent to the vendor in the form of HTML data. At this point, the HTML data is created with indications of "acceptance inspection terminated" for records in which the date of acceptance inspection has been entered, and "printed" for records in which the date of printing has been entered.

On the vendor side, the received HTML data is displayed (step S39), and a candidate for order acceptance processing is specified in the displayed list of records (step S40). The WWW server converts the record in the ordering database (2) corresponding to the specified candidate for processing into HTML data in the form of a statement of delivery and then sends it to the vendor (step S41). On the vendor side, the received HTML data is displayed (step S42) and printing is then specified (step S43). In response to this, the WWW server sends a statement of delivery (step S44). The statement is then printed on the vendor side (step S45). The WWW server enters the date of printing into the record in the ordering database (2).

FIG. 4 is a flowchart for shipment and acceptance inspection processing among the office system, the VAN center, and the vendor.

The vendor specifies the URL of the WWW server and enters its ID and password to make access to the WWW server (step S47). The WWW server sends the HTML data of the menu to the vendor (step S48). On the vendor side, the received HTML data is displayed on its terminal in step S49. The "shipment" option is selected from the displayed menu (step S50). In response to this, the WWW server sends the HTML data of a page for shipment processing to the vendor (step S51).

On the vendor side, the received HTML data is displayed (step S52) and a slip number of the statement of delivery obtained by the processing of FIG. 3 is input (step S53). Upon receipt of the slip number, the WWW server retrieves a record corresponding to the slip number from the ordering database (2) (step S54) and then sends that record converted into HTML data to the vendor (step S55). On the vendor side, the received HTML data is displayed (step S56) and the date of shipment is then entered (step S57). The WWW server placed the date of shipment in the corresponding record in the ordering database (2). That record which has not yet been sent but contains the date of shipment is sent to the system manager (step S59). The system manager

then updates the ordering database (1) on the basis of the received record (step 60). The system manager sends to the office system that record which, of records in the ordering database (1), has not been
5 sent yet and contains the date of shipment (step S61). On the office side, the date of acceptance is entered into the received record (step S62) and that record is then sent to the system manager.

Upon receipt of the date of acceptance, the system
10 manager enters the date of acceptance inspection in the corresponding record in the ordering database (1) (step S63). In step S64, the system manager retrieves the record which has not yet been sent to the WWW server and contains the date of acceptance inspection,
15 and sends it to the WWW server with the sender's code set (step S65). The WWW server searches for the ordering database (2) corresponding to the sender's code set in the received record and then enters the date of acceptance inspection, in the corresponding
20 record in the ordering database (2) (step S66).

Note that the HTML documents are sent to the vendor in the FORM format for data entry.

FIG. 5 is a flowchart for processing of, in addition to the processing described in conjunction
25 with FIGs. 2, 3 and 4, refusing additional requests

in the case where there is a request in which acceptance inspection of commodities has not been made for a predetermined period of time.

The processing of FIG. 5 is performed prior to
5 step S2 of FIG. 2 or step S27 of FIG. 3. When an estimate request is input in step S1 of FIG. 2 or a purchase request is input in step S26 of FIG. 3, the estimate request or order request is received in step S67. When either request is received, records in
10 which the date of shipment has been entered but the date of acceptance inspection has not been entered are retrieved using the requester's department code as a key (step S68). In subsequent step S69, it is determined whether or not there is a record for which
15 the present date is seven days or more after the date of shipment. This determination allows confirmation that there is a request for which acceptance inspection of a commodity has not yet been made, even after a lapse of seven days from the date of shipment.
20 If the determination is No in step S69, then all the requests corresponding to the department's code are considered to have acceptance inspection made already within seven days after the date of shipment. In this case, a new request is accepted (step S71), and the
25 procedure then goes to step S2 of FIG. 2 or step S27

of FIG. 3. On the other hand, if the determination in step S69 is that there is a request for which acceptance inspection has not been made within seven days after the date of shipment, a message to the effect that no other request will be accepted is sent to the requester (step S70).

FIGs. 6A through 6F show the storage contents of the respective databases provided in the system of the present invention.

FIG. 6A shows the storage contents of the classification database which manages the classification of commodities which are estimated and ordered. Each menu is numbered and hence identified by a number. A menu name is associated with each menu number and they are entered with a correspondence therebetween. In the case of FIG. 6A, examples of menus include "books", "stationery", and "printing". In each menu are entered items for classifying commodities in detail. This database is provided in the system manager, by way of example.

FIG. 6B shows the stored contents of the estimate database (1) provided in the system manager.

Each estimate request is assigned an estimate number. In this database, the contents of each estimate request are entered with its estimate number

as a key. In the example of FIG. 6B, "B1" is entered as an item code of a commodity and "pencil" is entered as an item's name corresponding to the item code. Specification indicates detailed information about pencils. In the figure, it indicates an estimate request for HB pencils manufactured by a certain company. In addition, the desired date of delivery and the desired date of reply to the estimate request are entered. Finally, the corresponding menu number and menu name shown in FIG. 6A are described.

FIG. 6C shows the stored contents of the estimate database (2) provided in the WWW server.

The estimate database (2) stores basically the same data items (data fields) as the estimate database (1), but it has an additional data item of the date of transmission from which whether or not the estimate reply from the vendor has been sent to the system manager can be judged. That is, the estimate request having the estimate number "0101" is one for a commodity in which the item code is "A1", the item name is "Japanese book", and the specification indicates a book entitled "An Introduction to HTML". The time limit for delivery of the commodity is set to Oct. 10, '97, and the term for the estimate reply is set to Sept. 20, '97. The menu number is set to

"01" and the menu name is set to "book". The estimate database (2) includes the data item of the date of transmission for each estimate number (estimate request) as described above. In the example of FIG. 6C, no date is entered in the "transmission date" field. It is thus seen that no reply has been sent to the system manager for any estimate request. It is when a reply is sent from the WWW server to the system manager that the date of transmission of this reply is entered in the "transmission date" field.

As described previously, it is only for estimate requests for which the "transmission date" field is empty or the term of reply has not expired that replies are sent from the WWW server to the system manager. In sending a reply to a request for estimate to the system manager, the WWW server determines which estimate request the reply corresponds to on the basis of the estimate number and checks the fields of "term of reply" and "transmission date" to make sure that the term has not expired and the "transmission data" field is empty.

FIG. 6D shows the stored contents of a number-of-requests database in which the number of estimate requests are entered, the database being provided in the WWW server.

In the case of FIG. 6D, the number of estimate requests is counted for each menu. The example of FIG. 6 indicates that the number of estimate requests for the menu "01" for books is one. Likewise, the number of estimate requests for the menus "03" and "04" for printing and taking a photograph is indicated to be zero. This database can be used to manage the present condition in which how many estimate requests have been made by the whole organization for which commodities, is stored. In addition, since that an estimate request is made for a certain commodity means that the commodity is necessary for business, the database can be used to examine the tendency for commodities to become necessary for business by subsequent statistical processing of the number of requests for each menu.

FIG. 6E shows the stored contents of the ordering database (1) provided in the system manager.

The records in the ordering database (1) are organized by slip number, which is attached to each purchase request. Each record contains fields: item, item name, specification, quantity, unit, term of delivery, vendor code, and vendor name identified by the code. In addition to these fields, the record contains fields: shipment date which is entered by

data transmission from a vendor, date of acceptance inspection made by the general affairs service center, and date of transmission which is entered by sending data to the office system for acceptance inspection
5 and later notifying the WWW server of the date of acceptance inspection.

As described previously, the shipment date is entered when the system manager receives notification from the WWW server that the vendor has shipped a
10 commodity. Likewise, the date of acceptance inspection is entered when receiving a notification that the acceptance inspection was made, and the date of transmission is entered when the WWW server is notified of the data of acceptance inspection.

15 FIG. 6F shows the stored contents of the ordering database (2) provided in the WWW server.

The contents entered into the database (2) are the same as those in the database (1) except that the date of printing is added as a data item to be entered.
20 The printing date field is provided to record the date on which a statement of delivery was printed by the vendor which accepted an order, indicating that a transaction has been arranged. The field of date of shipment is completed when receiving data on the date
25 on which a commodity was shipped from the vendor. The

date of shipment is first entered into the database (2) and then into the database (1) in the system manager. The date of acceptance inspection is first entered into the database (1) and then into the database (2). The other data items are the same as those in the database (1).

FIG. 7 shows a display example of a menu on the home page that is displayed first when the vendor makes access to the estimate request/ordering system in the WWW server.

In this example, the main menu contains a list of options: estimate request, order acceptance processing, shipment information transmission, accounts payable information reception, and a list of estimate replies. In particular, below the estimate request option are displayed item names and the number of estimate requests for each item, from which a vendor can know what types of commodities the organization needs for business. The names of items include book, taking a photograph, development, outside repair, translation/typing, fixtures, sundries, stationery, date stamp, printing, signboard/panel, and others. When the vendor wants to see the details of an estimate request for an item, it is possible to open the next page by clicking the

corresponding item name by the use of a mouse.

FIG. 8 shows a display example of a list of estimate requests.

This example displays a list of estimate requests
5 for books. The list contains data items: the office
that made an estimate request, item name, commodity
number maker name, quantity, unit, and term of reply.
For example, from the figure it is known that the main
office has a demand to purchase 10 copies of a book
10 entitled "Visual Basic 4 Self-Master Book" and wants
to receive the results of estimates before June 11,
1997. In order to obtain detailed estimate request
information, a vendor simply clicks the corresponding
item name with a mouse.

15 FIG. 9 shows a display example of a page
indicating the contents of an estimate request.

For example, this page is opened by clicking an
item name in FIG. 8. The contents contain the
requester's name, the date of request, the extension
20 and phone numbers, and so on in addition to the item
name and quantity. The vendor makes a decision of
whether or not to make a reply to the request on the
basis of the request contents. Depending on
circumstances, it may take some time to estimate. In
25 such a case, the vendor stops access temporarily to

make an estimate. On completion of the estimate, the vendor makes access to the page shown in FIG. 9 again and then clicks the "go to estimate reply" option in the lower portion of the drawing.

5 When the estimate can be made immediately, the vendor may click the "go to estimate reply" option and go to a page for estimate reply.

FIG. 10 shows a display example of the page for an estimate reply. In the estimate reply page are listed
10 data items that need to be answered. The vendor simply enters the result of the estimate for each data item. The data items for reply contain list price, discount rate, amount, days for delivery after ordering, and so on. These items are used for the
15 general affairs service center to decide whether the contents of the estimate reply received meet the evaluation criteria. When estimate replies are received from two or more vendors, the items can be used as criteria for determining with which vendor a
20 satisfactory deal can be made.

It is also possible to attach information on particulars to the estimate reply. In this case, "YES" is selected in the "particulars attached" item at the bottom of FIG. 10.

25 FIG. 11 shows a display format of the particulars

in the estimate reply.

The contents of FIG. 11 are displayed to follow on from the bottom of FIG. 10. To attach particulars, the vendor simply fills in such a displayed form as shown in FIG. 11. By clicking a Transmit button placed at a portion indicated by (23) or (24) at the bottom of FIG. 11, the entered estimate reply is sent to the WWW server. If the Transmit button is placed at a portion (23), a Clear button used for data reentry may be placed at portion (24).

FIG. 12 shows a display example of a list of order acceptances which is displayed when the "Order Acceptance Processing" option is selected from the main menu shown in FIG. 7.

Each record to be displayed contains fields labeled slip number, item name, quantity, unit, desired delivery term, condition, and acceptance inspection date. Watching this display, the vendor can accept an order for an item for which the condition field is described "not outputted". That is, the Situation field described as "outputted" indicates that the order for the corresponding item has been already accepted and a statement of delivery has been outputted. Thus, it is not necessary to accept this order anew. The condition field described

as "acceptance inspected" indicates that the corresponding item has been delivered and the recipient has made acceptance inspection. It is also unnecessary to accept the order for this item anew.

5 Thus, according to the system of the present invention, vendors can understand the conditions of commodities which they have delivered or for which they have accepted orders, which prevents vendors from accepting an order twice and allows the office work
10 to be speeded up.

 Therefore, to accept an order for a commodity, vendors simply carry out the procedure of searching through the records in the list of order acceptances for a commodity for which the condition field is
15 described as "not outputted" and clicking its name to display and output a statement of delivery.

 FIG. 13 shows a display example of a statement of delivery.

 Required items are entered by the orderer on this
20 statement of delivery. The vendor prints this statement and then sends it to the orderer together with a commodity shipped. On the other hand, the orderer confirms that the statement of delivery has been printed and then enters the date on which it was
25 printed in the date of printing field in the ordering

database (2). Thereby, a display of "outputted" is made in the condition field of the list of order acceptances of FIG. 12, indicating the order for the corresponding commodity has been accepted.

5 FIG. 14 shows an example of a display for entry of required items when a vendor sends shipment information to the orderer.

When the Shipment Information Transmission option is selected by clicking from the main menu of FIG. 7, 10 a display such as shown in FIG. 12 is made. In shipping a commodity, the vendor sends this shipment information to notify the orderer that the commodity has been shipped with certainty. The input data items include slip number, item name, quantity, delivery 15 term, and date shipped. The vendor fills in the blanks for transmission to the orderer. The slip number is used for the orderer to identify the order request for the commodity which has been accepted. The shipment information contains the date of 20 shipment, which is recorded in the ordering databases (1) and (2) on the orderer side. Thus, the orderer can verify the date on which the commodity was shipped from the vendor.

FIG. 15 shows an example of a display when the 25 Accounts Payable Information Receive option is

selected from the main menu of FIG. 7.

As shown in FIG. 15, each transaction is treated by slip number, and quantity, unit, item, unit price, amount, date accepted, consumption tax, date acceptance inspected, and amount paid are displayed. This displayed table indicates that the payment for the commodities shown in FIG. 15 was completed on the date paid shown.

Such a table allows the vendor to confirm at a glance the dates on which commodities were accepted by the orderer and the dates on which the payment was made. This eliminates the need for the vendor to make inquiries to the orderer, allowing office work to be simplified.

FIG. 16 shows an example of a display when the list of estimate replies option is selected from the main menu of FIG. 7.

In the table of FIG. 16 are displayed the results of estimates for commodities as replied to the orderer by a vendor. The list contains the fields: department, item, type number, maker name, quantity, unit, and reply term. The vendor can verify the contents of the estimate replies made to the orderer and confirm that the estimate replies were forwarded to the orderer. In addition, the fact that the

orderer and the vendor share data provides an advantage of preventing the occurrence of trouble therebetween due to a conflict in business conditions.

Furthermore, the vendor can click an item name to
5 see the details of an estimate reply made by itself.
The details of an estimate reply may be in the same
format as in FIG. 10, but a new display format may be
created.

Although the present invention has been described
10 in terms of a specific example, it is apparent that
other embodiments and modifications are possible.

According to the present invention, the orderer
and the vendor can verify common business information,
reducing the possibility of trouble which might occur
15 therebetween.

Since the orderer presents business information to
the vendor in the form of data, the number of
documents can be reduced to prevent the waste of
paper.

20 Since business information appears in the home
page of the WWW server, a versatile system can be
implemented which does not need any special equipment
to be installed in vendor systems. That is, the
vendor systems do not need to install any other
25 software than a browser.

In particular, since the displayed business information contains information as to whether or not acceptance inspection was made by the orderer, the vendor can easily confirm that a commodity was
5 delivered to the orderer, and the payment for the commodity was made, without fail.

Conventionally, delivered articles or services are sometimes not inspected for a long time by an organization, delaying the payment to vendors. In
10 such a case, inquiries from the vendors increase, which results in extra work for handling the inquiries. According to the present invention, this problem can be solved.